

What is claimed is:

1. A cable comprising one or more electrical conductors, communications media
or a core, each electrical conductor, communications medium, or core being surrounded by a
5 layer comprising:
 - (a) polyethylene; polypropylene; or mixtures thereof;
 - (b) at least about 3 parts by weight, based on the weight of component (a),
carbon nanotubes;
 - (c) a conductive carbon black other than carbon nanotubes, the carbon black
10 present in an amount at least about 10 parts by weight, based on the weight of component (a);
and
 - (d) optionally, (i) a copolymer of acrylonitrile and butadiene wherein the
acrylonitrile is present in an amount of about 30 to about 60 percent by weight based on the
weight of the copolymer or (ii) a silicone rubber.
- 15 2. The cable defined in claim 1 wherein component (a) is a copolymer of ethylene
and an unsaturated ester.
3. The cable defined in claim 2 wherein the unsaturated ester of the
20 ethylene/unsaturated ester copolymer is selected from the group consisting of vinyl esters, acrylic
acid esters, and methacrylic acid esters, and wherein the unsaturated ester is present in the
ethylene/unsaturated ester copolymer in an amount of about 10 to about 55 percent by weight.
4. The cable defined in claim 1 wherein the layer is a semiconducting shield and
25 component (c) is present in an amount of about 10 to about 100 parts by weight per 100 parts by
weight of component (a).
5. The cable defined in claim 1 wherein the layer is a semiconducting shield and,
for each 100 parts of component (a), component (b) is present in an amount of about 3 to about
30 17 parts by weight ; component (c) is present in an amount of about 10 to about 100 parts by
weight; and the weight ratio of component (b) to component (c) is about 0.1 :1 to about 10 :1.

6. A cable comprising one or more electrical conductors, communications media, each electrical conductor, communications medium, or core being surrounded by a semiconducting shield layer comprising:

5 (a) an ethylene/unsaturated ester copolymer comprising an unsaturated ester selected from the group consisting of vinyl esters, acrylic acid esters, and methacrylic acid esters, and wherein the unsaturated ester is present in the ethylene/unsaturated ester copolymer in an amount of about 10 to about 55 percent by weight;

(b) carbon nanotubes;

10 (c) a conductive carbon black other than carbon nanotubes; and

(d) optionally, (i) a copolymer of acrylonitrile and butadiene wherein the acrylonitrile is present in an amount of about 30 to about 60 percent by weight based on the weight of the copolymer or (ii) a silicone rubber

15 with the proviso that, for each 100 parts of component (a), component (b) is present in an amount of about 3 to about 17 parts by weight ; component (c) is present in an amount of about 10 to about 80 parts by weight; and the weight ratio of component (b) to component (c) is about 0.2 :1 to about 8 :1.

20 7. A cable comprising one or more electrical conductors, communications media, each electrical conductor, communications medium, or core being surrounded by a layer comprising:

(a) polyethylene; polypropylene; or mixtures thereof;

(b) carbon nanotubes; and

(c) a conductive carbon black other than carbon nanotubes

25 with the proviso that, for each 100 parts of component (a), component (b) is present in an amount of at about 3 to 17 parts by weight.

8. A composition comprising:

30 (a) an ethylene/unsaturated ester copolymer comprising an unsaturated ester selected from the group consisting of vinyl esters, acrylic acid esters, and methacrylic acid esters,

and wherein the unsaturated ester is present in the ethylene/unsaturated ester copolymer in an amount of about 10 to about 55 percent by weight;

(b) carbon nanotubes;

(c) a conductive carbon black other than carbon nanotubes; and

5 (d) optionally, (i) a copolymer of acrylonitrile and butadiene wherein the acrylonitrile is present in an amount of about 30 to about 60 percent by weight based on the weight of the copolymer or (ii) a silicone rubber

with the proviso that, for each 100 parts of component (a), component (b) is present in an amount of about 3 to about 17 parts by weight ; component (c) is present in an
10 amount of about 10 to about 100 parts by weight; and the weight ratio of component (b) to component (c) is about 0.1 :1 to about 10 :1.